panulate, 3-4 lines high, little exceeding the spatulate sepals, light purple with yellowish base: the unequal filaments and short cleft stvle included: capsule oblong, 3 lines high, exceeded by the sepals; seeds numerous (40-50), light brown, deeply pitted and variously angled or rounded. Of the *Eutoca* group.—In wet sand, banks of Rock creek, borders of the Mojave desert, Los Angeles Co., Calif., June, 1887.—SAM'L B. PARISH, *San Bernardino, Calif.*

EDITORIAL.

THE DEATH of Dr. Asa Gray removes from American botany one who can have no successor. His work may be continued, but his commanding position can not be attained by any other. The circumstances which gave him such a grasp upon men and materials will not be repeated. The greatest name in American botany is the unanimous verdict of his countrymen. But his most enduring monument is not this unanimous acknowledgment of his greatness as a botanist, but the loving remembrance of the kindly, helpful man, which is cherished in the hearts of more than one generation of botanists, none of whom he ever turned away unanswered, all of whom he considered as friends that must be helped. Two years ago the GAZETTE published, with his sanction and help, a biographical sketch; and it but remains now for us to pay our tribute of love and respect to one who has been taken away, full of years and honor, but still in the midst of his work. The loss seems an irreparable one, but his name will always be a guide and incentive to every American botanist

THE ARTICLE by Dr. Minot in a recent number of *Science* regarding the unsuitableness of American microscopes for the use of biologists has provoked comment from nearly every American journal dealing wholly or in part with biology, and the verdict appears to be that some of the writer's points were well taken, although the statements may have been stronger than the facts will warrant. The rapid increase in number and size of biological laboratories brings about an increasing demand for a low-priced instrument adapted to certain kinds of work. This demand is met by German manufacturers, but is to a certain extent ignored by American manufacturers. The result is that probably half of the instruments now bought for biological purposes come from abroad, and the number would doubtless be greater but for the trouble and delay of importing. The subject is one that has often been discussed, but the present agitation is more general than at any previous time, and promises to be more fruitful, as it has aroused the makers to a show of defense. The American manufacturer takes pride in the handsome instrument which he turns out, and the only influence that is likely to be strong enough to

develop a permanent interest in the small plain instrument the biologist is asking for is a financial one. That there is an inclination to meet the rising demand is evident from the circular of inquiry sent out by Queen & Co. last year, from the construction of the "Harvard" stand by Bausch & Lomb Optical Co., which embraces some features of the foreign models, from the similar stand just put in the market by Bulloch, and from the tone of the replies already made to Dr. Minot's article. The old prejudice against American instruments, because American, has nearly passed away, and the investigator is now likely to buy where he can best and most easily meet his needs. On the other hand, if the instrument-maker will lay aside his prejudices against a plain instrument of superior workmanship, there will not long be grounds for accusation and controversy.

OPEN LETTERS.

Mutilation of flowers by insects.

On page 111, 1887, of the GAZETTE I suggested that botanists note all cases in which insects mutilate flowers for the purpose of securing the nectar; and that the insects be captured, and their scientific names be published with such notes. Professional duties have made it impossible for me to give much time to this class of observations, but have the following notes which may be of some value. I found that a majority of the corollas of a large number of plants (examined in several localities) of *Physostegia Virginiana* and *Mertensia Virginica* were slitted as described in the GAZETTE for October, 1886 and May, 1887. The only insect which I found doing this work was *Bombus Pennsylvanicus*. For nearly two months, during the past summer, I had under observation two large vines of two species of honeysuckle. In the first, the common woodbine, the corolla is deeply cleft, with the lips well turned back. This plant is deliciously fragrant, and, to my surprise, the only insects which visited it belong to the genus Halictus, apparently all the same species. All entered at the open mouth of the corolla. The flowers are proterandrous. In the second, the trumpet or coral honey-suckle, the mouth of the corolla is small and the short divisions not reflected. It is also proterandrous. This species was abundantly visited by the leaf-cutter or upholster bee (Megachile brevis), and one or more species of Halictus.[1] The leaf-cutter bee never enters the mouth of the corolla, but goes directly to the base, and shears out a round piece, usually near one-eighth inch in diameter; through this it extracts the sweets. It is sometimes necessary to make two or three openings before it gets to the right place. This operation is done as easily and quickly as one could do it with sharp scissors. In the majority of instances the piece cut out is allowed to hang by a little hinge at one side. Through this circular opening the Halictus enters and makes a more thorough search for the remaining honey.

[1] These small insects are commonly known as "sweat bees," from their habit of alighting on one's person while sweating freely and sucking up the perspiration. Mr. C. M. Weed, of the Ill. State Laboratory, kindly identified the insects for me.